Cal/EPA
Air Resources Board

Proposed Amendments to the Chromium Plating ATCM

December 7, 2006
(Continued from September 28, 2006)

Outline

- September Hearing Summary
- Proposed Modifications
- Benefits and Impacts
- Outstanding Issues
- Recommendation

September Hearing Summary

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- Hexavalent chromium is an extremely potent human carcinogen
- Many facilities located near sensitive receptors
- Near-source health risk still of concern

September Hearing Summary

- Proposed control based on best available control technology (BACT)
- BACT based on throughput
- Alternative compliance options may reduce cost

Industry Concerns

- Emission rate limit without add-on control requirement
- Allow additional facilities to use chemical fume suppressants as sole control
- Economic impacts of proposal

Environmental Community Concerns

- Require all facilities within 1,000 feet of a sensitive receptor to install best available control
- Include “move-in” provision

Alternative Proposal from the SCAQMD

- Emission rate limit without add-on control requirement
- More stringent limit for new and large existing facilities
- Enhanced monitoring and enforcement

Board Direction

- Return with additional information and revised proposal
- Consider:
  - Proximity to sensitive receptors
  - Emission rate without specifying add-on control

Board Direction (cont.)

- Work with air districts on equivalency process
- Discuss options with stakeholders

Proposed Modifications

Overview of Revised Proposal

- New facilities
  - Stringent emission limit met with add-on control
  - 1,000 foot separation

Overview of Revised Proposal

- Existing facilities very near sensitive receptor
  - 330 feet (~ 1 block)
  - Stringent emission limit met with add-on control
  - Small facilities use specific chemical fume suppressants
  - Compliance timeline based on throughput

Overview of Revised Proposal

- Existing facilities with no near-by sensitive receptor
  - More than 330 feet
  - Flexibility for smaller and medium-sized facilities
  - Large facilities meet stringent emission limit with add-on control
  - Compliance timeline based on throughput

Requirements for New Facilities

- New hexavalent chromium facilities
  - Prohibits operation in areas zoned residential or mixed use, or within 1,000 feet of the boundary of any such area
  - Install HEPA filter and meet an emission rate of 0.0011 mg/amp-hr
  - Conduct site specific risk analysis

Existing Facilities Very Near* Sensitive Receptor

Facility Size (amp-hr/year)	Emission Control	Effective Date
≤ 20,000	Use Specific Chemical Fume Suppressants	6 Months
> 20,000 to ≤ 200,000	0.0015 mg/amp-hr with add-on control	3 Years
> 200,000	0.0015 mg/amp-hr with add-on control	2 Years

* Within 330 feet

Existing Facilities with No Near-by* Sensitive Receptor

Facility Size (amp-hr/year)	Emission Control	Effective Date
≤ 50,000	Use Specific Chemical Fume Suppressants	6 Months
> 50,000 to ≤ 500,000	0.0015 mg/amp-hr	4 Years
> 500,000	0.0015 mg/amp-hr with add-on control	2 Years

* More than 330 feet

Distance Determination

- Measurement from chromium plating tank (or stack) nearest sensitive receptor to property line of sensitive receptor
- Measurement taken once
  - Distance from nearest sensitive receptor that exists on effective date of ATCM
  - Measurement reported within 30 days

“Move-in” Provision

- Considered “move-in” provision
- Proposing educational outreach
  - Planning agencies
    - Apprise of health impacts if people allowed to move-in
    - Possible mitigation
  - Plating/anodizing operators
    - Follow land-use decision-making process
    - Possible mitigation

Equivalency per Health and Safety Code section 39666(f)

- Alternative method must demonstrate equivalent emission and risk reduction
- Consulted with air districts on demonstrating equivalency
- Source testing guideline for measuring emissions

Equivalency Process

- New Appendix 9
- Information to submit to air district for review of alternative method
  - Source test results
  - Demonstration of equivalency:
    - Emission reduction
    - Risk reduction
  - Enforceability

U.S. EPA Concurrence

- U.S. EPA must concur on alternative methods to meet emission rate
- Commitment from U.S. EPA to review within 45 days per Memorandum of Agreement

Alternative Method - Additional Requirements

- Facilities with air district-approved alternative using in tank controls only:
  - More frequent surface tension measurement
  - More careful monitoring of mechanical fume suppressants (polyballs)

Other Proposed Modifications

- Use of specific chemical fume suppressants within 6 months
- Distance measurement provided annually to permitting agency
- Delete U.S. EPA from concurrence on alternatives where allowed
- Definitions

Other Proposed Modifications

- Emission limits apply to each ‘tank’
- Site specific risk analysis waived if approved by air district
- Surface tension measurement provisions
- Risk analysis for new trivalent chromium facilities

Other Proposed Modifications

- Trained personnel must be on-site
- Other clarifying amendments

Benefits and Impacts

Significant Near Source Cancer Risk Reduction Achieved

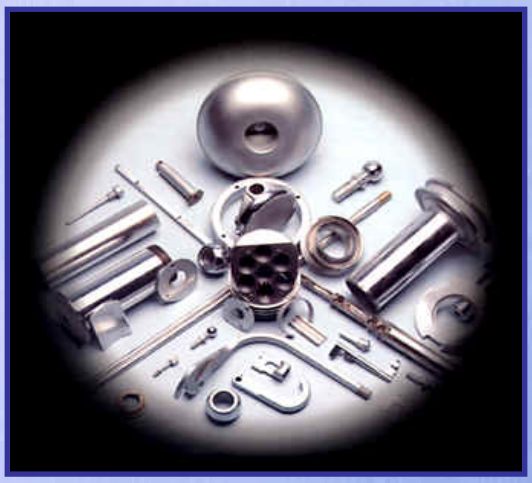
- About 70% of facilities' cancer risk reduced to < 1 per million people exposed
- About 90% of facilities' cancer risk reduced to < 10 per million people exposed

Cost Impacts

- Revised proposal cost estimate is $13.5 million
  - Capital cost of $8.9 million based on 82 add-on control systems
  - Equivalent method demonstration option for all facilities
- Original proposal cost estimate was $14.2 million
  - Capital cost of $9.6 million based on 89 add-on control systems

Cost Impacts

- Individual facility cost for add-on control ~$46,000 per year
- About 60% of facilities have no substantial cost after the first year



Outstanding Issues

Outstanding Issues

- Distance to protect sensitive receptors
  - 330 or 1,000 feet
- Require add-on controls for all facilities within this distance

Outstanding Issues

- Emissions-based standard *vs.* add-on control requirement
- Equivalency

Outstanding Issues

- “Move-in” situations
- Costs/stringency of controls

Recommendation

- We recommend that the Board adopt the revised proposal